

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
(Case No. 05-790-US)**

In the Application of: )  
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                            Samal, et al.     )     Art Unit:    **2828**  
                            )  
Serial No.:   **10/592,999**     )  
                            )  
                            )  
Filed:       **September 15, 2006**     )  
                            )  
For:    **High Power VCSELs with Transverse Mode**     )  
                            )  
                            **Control**              )

**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 C.F.R. Section 1.97 - 1.99, the Applicant wishes to make the following references of record in the above-identified application. This Information Disclosure Statement is in compliance with the continuing duty of candor as set forth in 37 C.F.R. Section 1.56. Copies of the references cited below are enclosed. These references are also listed on the enclosed PTO Form 1449.

In the judgment of the undersigned, portions of the listed references may be material to the Examiner's consideration of the presently pending claims. However, the references have not been reviewed in sufficient detail to make any other representation and, in particular, no representation is intended as to the relative relevance between references, whether cited in this or prior statements. This statement is not a representation that the listed references have effective dates early enough to be "prior art" within the meaning of 35 U.S.C. Section 102 or Section 103.

This Information Disclosure Statement is being filed:

- within three months of the filing date of a national application; within three months of the date of entry into the national stage as set forth in 37 C.F.R. § 1.491 in an international application; or before the mailing date of a first Office Action on the merits. 37 C.F.R. § 1.97 (b)
- after** three months of the filing date of a national application, or the date of entry into the national stage as set forth in 37 C.F.R. § 1.491 in an international application; or **after** the mailing date of a first Office Action on the merits, but **before** the mailing date of a Final Action under 37 C.F.R. § 1.113 or a Notice of Allowance under 37 C.F.R. § 1.311 (whichever occurs first), and includes (37 C.F.R. § 1.97 (c):
  - the Certification under 37 C.F.R. § 1.97(e) (see “Certification” below)

**OR**

- the fee of \$180.00 set forth in 37 C.F.R. § 1.17(p) (see “Fees” below).
- after** a Final Action under 37 C.F.R. § 1.113 or a Notice of Allowance under 37 C.F.R. § 1.311 (whichever occurs first), but before, or simultaneously with, the payment of the issue fee, and includes the Certification under 37 C.F.R. § 1.97(e) (see “Certification” below), and the Petition Fee set forth in 37 C.F.R. § 1.17(i) (see “Fees” and “Method of Payment of Fees” below). Applicants hereby petitions for consideration of the Information Disclosure Statement submitted herewith and the accompanying references in examination of the subject patent application.

**CERTIFICATION**

- The **undersigned** hereby certifies that each item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign patent application not more than three months prior to the filing of the Information Disclosure Statement.
- The **undersigned** hereby certifies that no item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign patent application or, to the knowledge of the person signing the certification after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of the Information Disclosure Statement.

FEES

- No fee** is owed by the applicant(s).  
 The **IDS Fee of \$180.00** under 37 C.F.R. § 1.17(p) is enclosed herewith.

METHOD OF PAYMENT OF FEES

- Attached is a check in the amount of \$180.00

Date: September 7, 2007

Respectfully submitted,

/Isadora F. Bielsky/

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Registration No. 60,748

**US Patent Documents**

1. Jiang, et al., US Patent No. 6,021,146, Issued February 2, 2001.
2. Jiang, et al., US Patent No. 6,026,111, Issued February 25, 2000.
3. Gopinath, US Patent No. 6,515,305, Issued February 2, 2003.
4. Jewell, US Patent No. 5,729,566, Issued March 17, 1998.
5. Jewell, US Patent No. 5,719,891, Issued February 17, 1998.
6. Kinoshita, et al., US Patent No. 6,535,537, Issued March 18, 2003.

**Other Documents**

7. Degen, et al., "Tranverse modes in oxide confined VCSELs: Influence of pump profile, spatial hole burning, and thermal effects," Opt. Express, 5:38-47 (1999).
8. Nakwaski, "Current spreading and series resistance of proton-implanted vertical-cavity top-surface-emitting lasers," Appl. Phys A, 61:123-127 (1995).
9. Zhao and McInerny, "Traverse-mode control of vertical-cavity surface-emitting lasers," IEEE J. Quantum Electron. 32:1950-1958 (1996).
10. Nakwaski and Sarzala, "Traverse modes in gain-guided vertical-cavity surface-emitting lasers," Opt. Commun. 148:63-69 (1998).
11. H. J. Unold, S. W. Z. Mahmoud, R. Jager, M. Kicherer, M.C. Riedl, and K. J. Ebeling, IEEE Photon. Technol. Lett. 12, 939 (2000).

12. A. Haglund, J. S. Gustavsson, J. Vukusic, P. Modh, and A. Larsson, IEEE Photon. Technol. Lett. 16, 368 (2004).
13. D.S. Song, S.H. Kim, H. G. Park, C. K. Kim, and Y. H. Lee, Appl. Phys. Lett. 80, 3901 (2002).
14. D. Zhou and L. J. Mawst, IEEE J. Quantum Electron. 38, 1599 (2002).

In accordance with MPEP Sections 609 and 707.05(b), it is requested the document cited (including any cited in applicant's specification which is not repeated on the attached Form PTO-1449) be given thorough consideration and that it be cited of record in the prosecution history of the present application by initialing on Form PTO-1449. Such initialing is requested even if the Examiner does not consider a cited document to be sufficiently pertinent to use in a rejection, or otherwise does not consider it to be prior art for any reason, or even if the Examiner does not believe that the guidelines for citation have been fully complied with. This is requested so that each document becomes listed on the face of the patent issuing on the present application.

Respectfully submitted,

/Isadora F. Bielsky/

Date: September 7, 2007

By:

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